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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,886	01/25/2002	Yuri Arutyunov	99-975	1771
7590	10/27/2005		EXAMINER	
McDonnell Boehnen Hulbert & Berghoff			DYKE, KERRI M	
32nd Floor				
300 S. Wacker Drive			ART UNIT	
Chicago, IL 60606			PAPER NUMBER	
			2667	

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EX

<b>Office Action Summary</b>	<b>Application No.</b> 10/056,886	<b>Applicant(s)</b> ARUTYUNOV ET AL.	
	<b>Examiner</b> Kerri M. Dyke	<b>Art Unit</b> 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-24 is/are rejected.  
7) ☒ Claim(s) 22 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/14/03 3/17/03 1/28/2003 6/27/2002  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4-5) because there are numerous errors, for example:
  - a. Element number 36 is used to represent a hub in figure 1 and to represent a protocol stack in figure 2.
  - b. Element numbers 130 and 460 of figures 4 and 12 respectively are not mentioned in the specification.
  - c. Element 452 of figure 13 is referred to as element 454 in the specification.

It is requested that the applicant find and correct all errors, including those that may not be listed above. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 22 is objected to because of the following informalities: It repeats the phrase "each record comprising a physical network address" unnecessarily. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-2, 5-6, 8-10, 13, 15-20, 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Aiken (US 6,895,443).

5. In regards to claim 1, Aiken discloses a method for traffic gating in a computer network (figure 1 element 102) comprising a plurality of distributed subnets (figure 3). The method disclosed by Aiken is for facilitating communication between nodes on different subnets. An ARP request is sent to a broadcast device (120). This device generates a new ARP and sends it to all the nodes on all the subnets. If the destination node is on a different subnet it sets up the appropriate proxies. The source node is sent a response with the address of its gating device. Column 7 lines 19-32 provides a brief summary of the method and is followed by a more

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detailed summary from column 7 line 33 – column 12 line 20. The broadcast monitoring device, element 120, also acts as the traffic-gating device for each of the subnets (column 6 lines 38-44).

6. In regards to claim 2, Aiken discloses a computer readable medium having stored therein instructions for causing a processor to execute the method of claim 1 (column 4, lines 52-54).

7. In regards to claim 5, Aiken discloses the method of claim 1, further comprising, prior to receiving the first protocol request message, initializing the broadcast monitoring network device with a plurality of subnets, each subnet associated with at least one network element arranged to provide traffic gating to network devices on each subnet. Column 5 lines 60-66 discloses that the broadcast monitoring device is initialized with a plurality of subnets connected to gating elements 146, 148, and 150.

8. In regards to claim 6, Aiken discloses the method of claim 5, wherein the broadcast monitoring network device is initialized using a configuration file download. Column 5 line 67 – column 6 line 2 discloses that the broadcast device uses a data structure (configuration file) to maintain data about the subnets.

9. In regards to claim 8, Aiken discloses the method of claim 1, wherein if the first protocol response message is received on the broadcast monitoring network device, updating a local table of network addresses of network device not to proxy for with a network device of the second network device. Column 9 lines 35-50 discloses that the broadcast monitoring network device keeps a table and updates it if a node should not be proxied.

10. Claim 9 is the combination of claims 1 and 5 in independent form. The same grounds of rejection as used above are therefore applied here.

11. Claim 10 is rejected using the same grounds of rejection as applied to claim 2.

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12. In regards to claim 13, Aiken discloses the method of claim 9, wherein the first protocol addresses comprise internet Protocol (IP) addresses (figure 4B-D), and the second protocol addresses comprise hardware (MAC) addresses (figures 4E-F).

13. In regards to claim 15, Aiken discloses the method of claim 9, wherein the plurality of subnet initialization records comprise a plurality of static records and a plurality of transient records (Figure 3 element 154 and 156).

14. In regards to claim 16, Aiken discloses the method of claim 15, further comprising: storing the plurality of static records in a static traffic gating table on the broadcast monitoring network device (figure 3 element 154); and storing the plurality of transient records in a transient traffic gating table on the broadcast monitoring network device (figure 3 element 156).

15. Claim 17 is an independent combination of claims 9, 15, and 16 and is rejected using the same grounds of rejection.

16. In regards to claim 18, Aiken discloses the broadcast monitoring device of claim 17, wherein the broadcast monitoring device comprises a cable modem. In column 6 lines 7-15 it is disclosed that any suitable computing device can implement the nodes, the broadcast monitoring entity and network element.

17. Claim 19 is rejected using the same grounds of rejection as applied to claim 18.

18. Claim 20 is rejected using the same grounds of rejection as applied to claim 6.

19. In regards to claim 22, Aiken discloses the broadcast monitoring device of claim 17, further comprising: a routing table comprising a plurality of address records of network devices on the network address, each record comprising a physical network address, each record comprising a physical network address and a network address of each device (figures 4A-F).

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20. In regards to claim 23, Aiken discloses the broadcast monitoring device of claim 22, wherein the broadcast monitoring device uses the routing table to determine whether a network address of the first network device is in the routing table, and if so, the broadcast monitoring device invoking the third set of instructions for determining the subnet of the first network device (column 9 lines 35-50).

21. Claim 24 is rejected using the same grounds of rejection as applied to claim 18.

***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 7, 11-12, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aiken (US 6,895,443) in view of Gieseke et al. (US 2003/0069955).

24. In regards to claims 7, 12, and 21, Aiken discloses the methods of claims 5, 9, and 17, but not wherein the broadcast monitoring network device is initialized using a Simple Network Management Protocol (SNMP).

Gieseke et al. discloses using SNMP for initializing a device in paragraph 30 of page 2.

Gieseke et al. is analogous art because it is directed towards solving the same problem, which is how to initialize a device.

It would have been obvious to one of ordinary skill in the art to use SNMP as described by Gieseke et al. to initialize the broadcast monitoring network device taught by Aiken because

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SNMP is well known and used in the art for initialization tasks, as taught by Gieseke et al. in paragraph 3 of page 1.

25. In regards to claim 11, Aiken discloses the method of claim 9, wherein the step of receiving the plurality of subnet initialization records comprises receiving a configuration file during an initialization process, but not wherein the configuration file is encoded in a Type Length Value (TLV) format.

Gieseke et al. discloses using a TLV format in paragraph 52 on page 5.

It would have been obvious to one of ordinary skill in the art to encode the configuration file of Aiken using TLV as taught by Gieseke et al. because TLV is the typical format used, as taught by Gieseke et al. in paragraph 52 on page 5.

26. Claims 3-4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aiken (US 6,895,443) in view of *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961).

27. In regards to claims 3-4 and 14 Aiken discloses the methods of claims 1 and 9, wherein the first network device comprises a source customer premises equipment entity, the second network device comprises a destination customer premises equipment entity, the broadcast monitoring network entity comprises a cable modem, the network element comprises a network router. In column 6 lines 7-15 it is disclosed that any suitable computing device can implement the nodes, the broadcast monitoring entity and network element. Aiken discloses the broadcast monitoring network entity and the network element within the same overall entity. In *In re Dulberg* the court held that separation of components but retaining the same functionality is an obvious variation of the prior art.



***Conclusion***

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a. Keats et al. (US 6,738,828) and Taghadoss (6,175,867) provide methods of managing subnets including address discovery.
- b. Liu et al. (6,775,713) provides motivation for combining a cable modem, computer, and customer premise device into one unit.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd

  
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10/26/05